

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



7 Ag  
p. 6

# THE AGRICULTURAL • SITUATION •

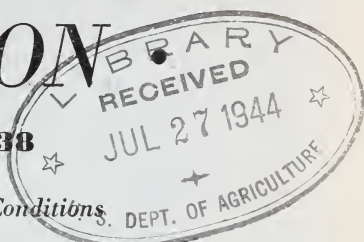
FEBRUARY 1, 1938

*A Brief Summary of Economic Conditions*

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 25 cents per year; single copy, 5 cents; foreign price, 45 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VOLUME 22 - NUMBER 2 - WASHINGTON, D. C.



## IN THIS ISSUE

	Page
Commodity Reviews.....	2-8
Freight Rates and the Farmer.....	9
.....Henry A. Wallace and Louis H. Bean	
Purchasing Power of Employed Workers.....	11
.....P. H. Bollinger	
Distribution of Agricultural Employment.....	13
.....Julius T. Wendzel	
Cooperative Egg and Poultry Auctions.....	16
.....John T. Scanlon and Roy W. Lennartson	
World Industrial Production.....	19
.....Normal J. Wall	
Economists in Government Service.....	23
.....Wayne F. Caskey	

THE NEW YEAR begins with prospects of stabilization of farm prices and income after the sharp recession of the last few months of 1937. Prices of products continue to go down, but less precipitously than last fall; there are indications that prices may stabilize around the 100 level in the farm price index. \* \* \* Wheat has been holding around 85 cents as an average farm price the country over, and cotton at 8 cents. Livestock prices have broken sharply but may do somewhat better in spring. \* \* \* Reports of reconciliation of some of the differences in the proposed farm legislation come from Capitol Hill. Another center of interest is the Interstate Commerce Commission where hearings are being held on the 15 per cent advance in freight rates requested by the railroads last fall. Secretary Wallace told the Commissioners last month that higher rates would be no help to farmers. \* \* \* Meanwhile, farmers make ready for spring work. Requests will soon go out from the BAE for reports on planting intentions; the returns have been scheduled for publication March 18.

# Commodity Reviews

## DEMAND: Little Change

**C**ONSUMER demand for farm and industrial products in general has not declined so sharply as industrial production during the last 5 months; if consumption is maintained near recent levels, there are prospects for an increase in industrial production over the near term. But little, if any, increase in consumer demand for farm products is expected during this period.

It is evident now that the severity of the industrial recession has been largely the result of conditions in a relatively few lines of production—steel, textiles, automobiles. The sharp contraction in these industries has affected to some extent practically all other lines, but retail trade and general business activity have held up relatively well. The recession, therefore, has been less widespread than commonly supposed.

There is evidence that the unfavorable inventory situation responsible for a large part of the decrease in industrial production is being gradually corrected in some lines of industry. In the first week of January, steel mill operations increased to about 25 percent of capacity; in the textile industries, inventories in dealers' hands have been reduced. Some pick-up in production of textiles, shoes, and other lines of consumer goods is expected.

Volume of exports of American farm products has increased sharply in recent months; exports are expected to continue in relatively large volume the remainder of this fiscal year, but at lower prices than in recent years of small supplies.

## FARM INCOME: Down

Farm income showed a further decline in December and was less than in December 1936. From November to December 1937 the decline in cash income from marketings was 38 million dollars; compared with December a

year earlier, the cash income was 50 millions less. A small part of the November to December decline was offset by an increase of 5 millions in Government payments, but Government payments in December were 28 millions less than in December 1936.

The November to December decline in income was slightly more than seasonal. Income from crops decreased less than usual at this time of year, but income from livestock and livestock products declined more than seasonally. The relatively better showing by crops was due largely to increased sales of fruits and vegetables and less than the usual seasonal decline in cotton marketings. In the livestock and products group, there was a sharp decline in income from poultry and eggs and a moderate decline in income from meat animals. These losses more than offset an increase in income from dairy products.

The following table gives the income figures for November and December 1936 and 1937:

	From marketings	From Government payments	Total
December:			
1937-----	\$675,000,000	\$8,000,000	\$683,000,000
1936-----	725,000,000	36,000,000	761,000,000
November:			
1937-----	713,000,000	3,000,000	716,000,000
1936-----	749,000,000	19,000,000	768,000,000

The 1937 income from sales of farm products and Government payments was raised slightly above earlier estimates, amounting to \$8,521,000,000 as compared with an estimate of \$8,500,000,000. More cotton was sold or placed under Government loan in the last 2 months of the year than had been anticipated. This raised the estimate of the income from cotton and cottonseed for the year from 821 million dollars to 864 millions, an increase which more than offset a slight downward revision in the estimated

income from livestock and Government payments.

## PRICES: Lower

The index of prices of farm products on January 15 was the lowest since June 1935. The January 15 figure was 102 compared with 104 on December 15 and with 131 on January 15, 1937.

### Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
1937			
January.....	131	130	101
February.....	127	132	96
March.....	128	132	97
April.....	130	134	97
May.....	128	134	96
June.....	124	134	93
July.....	125	133	94
August.....	123	132	93
September.....	118	130	91
October.....	112	128	88
November.....	107	127	84
December.....	104	126	81
1938			
January.....	102	126	81

<sup>1</sup> Ratio of prices received to prices paid.

<sup>2</sup> Revised.

The 2-point decline during the last month of record was due chiefly to lower prices of dairy and poultry products. Prices of grains, cotton, and cottonseed were a little higher than in the preceding month.

The increase in grains was the result largely of heavier export demand.

## FARM WAGE RATES: High

Farm wage rates on January 1 were the highest for that date since 1931, despite a drop of 15 points in the index of wage rates during the last quarter of 1937. The January 1 index was 111 percent of pre-war, compared with 103 on January 1, 1937.

Seasonal shifts in farm wage rates throughout 1937 were in general the widest recorded in 14 years of Government record. Wage rates rose 9 points during the first quarter of the year, 11 points were added in the second quarter, and 3 points in the third quarter.

For the year 1937 the index of wage rates averaged 120 percent of pre-war—the highest annual average recorded since 1930. The drop in rates in the last

## Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	January average, 1910-14	January 1937	December 1937	January 1938	Parity price, January 1938
Cotton, lb.....	12.4	12.2	12.4	7.6	7.9	16.1
Corn, bu.....	64.2	58.9	100.6	48.5	52.2	83.5
Wheat, bu.....	88.4	88.4	123.6	83.6	88.6	114.9
Hay, ton.....	11.87	11.87	11.51	8.79	8.77	154.3
Potatoes, bu.....	69.7	64.2	122.2	53.0	54.1	89.9
Oats, bu.....	39.9	39.0	52.7	29.1	30.0	51.9
Soybeans, bu.....	(1)	(1)	142.5	83.0	87.5	-----
Peanuts, lb.....	4.8	4.6	4.1	3.2	3.3	6.2
Beef cattle, cwt.....	5.21	5.04	6.54	6.08	5.93	6.77
Hogs, cwt.....	7.22	7.03	9.40	7.54	7.59	9.39
Chickens, lb.....	11.4	10.8	13.4	16.4	16.7	14.8
Eggs, doz.....	21.5	28.0	23.1	26.0	21.6	235.0
Butterfat, lb.....	26.3	29.2	34.3	38.4	33.5	236.1
Wool, lb.....	18.3	18.5	31.3	23.6	21.6	23.8
Veal calves, cwt.....	6.75	6.78	8.62	8.09	8.32	8.78
Lambs, cwt.....	5.87	5.79	7.92	7.48	7.15	7.63
Horses, each.....	136.60	133.70	96.30	86.20	87.60	177.60

<sup>1</sup> Prices not available.

<sup>2</sup> Adjusted for seasonality.



quarter of 1937 was due to lower farm prices, lower industrial activity, and to an increase in the number of persons available for hire at a time when farm labor requirements seasonally decline.

### WHEAT: Prices Up

Domestic wheat prices advanced sharply in early January, the result of a good export trade and active milling inquiry. Foreign demand improved, Australian shippers sold less freely, and offerings of Russian and Argentine grain were not large.

Wheat prices currently are influenced largely by European buying. If European demand continues as in mid-January the newly harvested Southern Hemisphere crop may be absorbed without becoming much of a price-depressing factor. World supplies outside Soviet Russia and China are only about 30 millions bushels more than the small supplies of a year ago, and the carry-over and crop in Argentina are small.

The movement of Argentine wheat usually reaches a peak in February. Thereafter the demand for hard wheat from the United States is expected to increase on account of the small supplies remaining in Argentina and Canada. Both of these countries usually compete with the United States in the marketing of hard wheats which are used by importers to strengthen soft wheat flour.

### COTTON: Higher

Cotton prices have trended slightly upward the last 2 months. The average of prices in spot markets in late January—8.57 cents for Middling seven-eighths inch—was the highest since mid-September. Strengthening factors have been a reduction in estimates of cotton production in foreign countries, the large movement of raw cotton out of trade channels into Government loan stocks, and a somewhat more favorable trend in commodity and security prices.

Recent estimates of 1937-38 foreign production are 800,000 to 1,000,000

bales less than in early December, with present estimates of total foreign production a little more than 19,000,000 bales. Nevertheless, the current estimates of the world supply of cotton—foreign plus United States—is 6,300,000 bales more than the record supply of last season. The supply of American cotton alone is estimated at 5,150,000 running bales above last season.

Recent buying of raw cotton by domestic mills has been chiefly for prompt shipment and confined largely to the lower grades of better character in a wide range of staple lengths. Domestic mill activity increased more than seasonally during the first half of January, but then leveled off. Total exports of 3,681,000 bales, August 1 to January 21, were about 400,000 bales more than in the corresponding period a year ago.

### FRUITS: Big Supply

Apples and oranges are in large supply this season, but fewer grapefruit seem to be available for market during the remainder of the winter as compared with a year ago.

Apples, reflecting record storage stocks on January 1, are selling much lower than a year ago; but for the same reasons—large supply and low prices—exports have been running far ahead of 1936 figures. Exports July through November totaled more than 4 million bushels—25 percent more than in the same period of 1936.

Oranges also have been selling below prices a year ago, but it is believed that prices are around the low point for the season. On January 1 the total crop of all winter and spring varieties of oranges was indicated at 42.5 million boxes, compared with 38.3 million for 1936-37, and 33.1 million, the 1931-35 average.

Grapefruit prices in mid-January were only slightly higher than at that time a year ago. The supply of grapefruit available for fresh market during the remainder of the current season appears to be somewhat smaller than

that of a year earlier, although the utilization of grapefruit by processing plants will probably be considerably less than the extremely large quantity so used last season.

## **TRUCK CROPS: Acreage Less**

A slight reduction compared with a year ago has been reported in the acreage of truck crops for the early part of the 1938 marketing season. But the acreage is 25 percent more than the 1928-32 average. Weather continued favorable through late January for the development of crops in the Southeastern States.

Harvesting of winter vegetables in Texas was delayed by wet fields in early January, but all growing crops have been making good progress. In the coastal and southern districts of California, generally favorable weather has advanced spring plantings.

As market supplies (domestic and imported) of winter vegetables gradually increased through mid-January, wholesale prices of most products tended downward from the relatively high figures in mid-December. About the only truck crops selling higher than at that time were eastern broccoli, old-crop cabbage, cauliflower, and onions.

Production of all commercial truck crops for market in 1937 was about 3 percent more than the previous high record of 1936. Truck crops for canning or manufacture were 16 percent more than in 1936 and exceeded the previous high record of 1930. Including market-garden vegetables, the estimated cash income from all truck crops in 1937 totaled about \$350,000,000, or \$35,000,000 more than in 1936.

## **RICE: Low Priced**

Prices of rice have been held to low figures by the unusually large crops in California and the Southern States. The supply of rice from both areas is the largest on record. Exports have been heavy since the harvesting of the

1937 crop; continued large exports are required as a price-sustaining factor.

## **CATTLE: Increased Feeding**

A 15 percent increase in the number of cattle on feed in the Corn Belt States, January 1, this year compared with last, suggests a marked increase in the supply of well-finished, grain-fed cattle in spring and summer.

For the full year, total slaughter of cattle and calves is expected to be smaller than in 1937, but much of this reduction will be offset by heavier average weight of cattle slaughtered. The supply of beef will be nearly as large as in 1937, but a larger proportion of it will be of better grade.

Prices of slaughter cows and of the lower grades of steers usually advance seasonally from January through May. The supply of these cattle will be much less this year than last, but an offset price-wise is the weak consumer demand for all meats.

In early January choice and prime grade slaughter steers at Chicago were selling for nearly \$8 less than in late October and about \$2.50 less than a year earlier. But prices of good grade slaughter cows were about the same as a year earlier.

Among the factors responsible for the sharp decline in prices of the better grades of cattle from October through December were a slight increase in the supply of such cattle, a decrease in consumer demand for meats, a seasonal increase in poultry supplies, a more-than-seasonal increase in slaughter supplies of hogs, and a sharp decline in hide prices.

## **HOG SUPPLY: Down**

Seasonal reduction in slaughter supplies of hogs is expected in late winter and early spring. Meanwhile, storage stocks of pork have increased less than seasonally and on January 1 were the second smallest of record for that date. Stocks of lard also are much below average.

But in late spring and summer the slaughter supply is expected to be larger than in corresponding periods of 1937. Although the 1937 fall pig crop was slightly smaller than that of 1936, the proportion of fall pigs to be marketed in the summer of 1938 is expected to be larger than in the summer of 1937.

Hog prices dropped 46 percent from midsummer through December—from about \$13 to a December average of less than \$8. Much of the decline in late December and early January, however, was in prices of heavy weight hogs. Hogs weighing around 300 pounds were selling in mid-January about \$1 less than hogs in the 200-pound class. Ordinarily at this season of the year there is little difference between prices of light and heavy hogs.

The December pig crop report, indicating a 5 percent increase in the number of sows to farrow in the spring of 1938, as compared with the spring of 1937, was a surprise to most livestock specialists. The indicated increase was much less than had been expected, in view of the current low level of hog production, the large feed supplies, and the high hog-corn price ratio in recent months.

### LAMBS: More on Feed

Prospects for increased slaughter supplies of fed lambs through April, compared with the corresponding period of last year, a currently weak consumer demand for meats, and reduced wool and pelt prices feature the sheep and lamb situation.

The number of sheep and lambs on feed January 1, estimated at 11 percent more than on that date last year, was the second largest on record. This means heavy marketings of fed lambs, but the increase will be offset in part by reduced marketings of Texas grass-fat yearlings in March and April.

Lamb prices usually show little change, or advance slightly, from October through December; but in the last quarter of 1937 there was a sharp

break. Apparently the decline was due largely to decreased consumer demand for meats and to lower prices of pelts and wool, since slaughter supplies of lambs during the period were less than in the last quarter of 1936.

Practically all of the increase in feeding this year over last has been in the Corn Belt States, where 3,286,000 head were on feed January 1, or 21 percent more than a year earlier. Increases were reported for all Corn Belt States except Wisconsin and Minnesota.

### FEED GRAINS: Prices Up

Prices of feed grains—corn, barley and oats—strengthened in early January, and are expected to hold at a comparatively stable level during the next few months. The large supply of corn per grain consuming animal is a limiting price factor, but so also is the corn loan program as checking a decline.

Stocks of corn on January 1 were 1,704 million bushels, or 215 million more than the 1928-32 average. The stocks figure indicates a disappearance of 1,007 million bushels from October through December, as compared with 860 million during the corresponding period a year earlier, and with a 1,229 million average for the period in 1928-32.

Exports of corn totaled 4,736,000 bushels from October 1 to January 1; barley 9,285,000 bushels, and oats 5,688,000 bushels. Exports of corn this marketing year are expected to be the largest in 7 years, possibly exceeding exports in 1929-30 when shipments totaled more than 40,000,000 bushels.

### WOOL: Prices Holding

The domestic wool trade finds encouragement in the slight advance in prices in most Southern Hemisphere wool markets in December. Trading picked up in domestic markets, but prices were irregular.

The Bureau of Agricultural Economics recently stated that in view of



the sharp decline of about 25 percent in prices of domestic wools at Boston since August and the improvement in foreign markets in December, domestic prices may hold near present levels in the next few months.

But no marked advance is expected during the first quarter of 1938, since supplies of raw wool and semimanufactures in the United States are fairly large, and prices of wool are still high in relation to prices of other textile raw materials.

### DAIRY PRODUCTS: Prices Break

Butter prices have broken sharply since early December due to a marked increase in milk production and the continued decline in industrial pay rolls. Prices during the first half of this year are expected to average lower than in the corresponding term of 1937. But despite the recent decline the price of butterfat is high in relation to feed prices.

Milk production on January 1 was the largest for that date since 1934. Production is expected to continue higher than in 1937 during the remainder of the winter feeding season. There was less than the usual seasonal decline in production of principal manufactured dairy products from October to November; large stocks of products moved into consuming channels in November; stocks of dairy products are much less than a year ago.

The break in butter prices has checked imports of foreign butter. Small shipments were coming in mid-January, but interest in foreign offerings has lessened. London butter prices have continued steady since their break in late November; the demand in Great Britain and in Germany appears strong enough to absorb available foreign supplies.

### FATS AND OILS: Lower Priced

Prices of most fats and oils this winter have averaged less than a year ago. Production of crude cottonseed

oil August 1 through December 31 set a new all-time high record of 1,092 million pounds; the 1937 soybean crop—about 41 million bushels—was the second largest on record; the peanut crop—at 1,292 million pounds—was little less than in 1936.

About half the quantity of coconut oil and double the quantity of cottonseed oil in late 1937 compared with 1936 was used in the production of oleomargarine. Cottonseed oil is expected, because of the unprecedented large supply, to continue to replace coconut oil in the manufacture of oleomargarine.

The 1937 flaxseed crop was less than 7 billion bushels compared with more than 14 billion in 1935. Imports of flaxseed have been running heavier than a year ago.

### POULTRY MARKETS: Weak

Markets for live poultry and eggs were weak in January due to heavy supplies and lessened consumer demand. Features of the supply situation have been the continued high rate of egg production per hen, the earlier-than-usual peak in cold-storage stocks of frozen poultry, and the record low numbers of laying birds on farms. A large out-of-storage movement of shell eggs was an important development during December. Broiler prices broke sharply in mid-January, the birds selling for 10 cents less than in mid-summer.

Egg prices usually decline from November or December through spring, but a decline so sharp as that in early 1937 is considered unlikely in 1938 in view of the much smaller size of farm flocks. The out-of-storage movement is regarded as increasing the chances for more favorable egg prices to producers this winter and next spring. Spring prices may be somewhat higher than in the spring of 1937.

The early peak of cold storage holdings of frozen poultry and the fewer number of birds on farms are expected to hold chicken prices in the first half

of 1938 above prices in the corresponding period of 1937.

## FARM FLOCKS: Small

Farm flocks of poultry on January 1 contained the smallest number of hens and pullets of laying age in 14 years of Government record for that date—77.4 layers as an average for the entire country—compared with 84.2 on January 1, 1937.

Biggest reduction is in the Central States, the result of recurring drought and feed shortages in recent years.

January figures for the West North Central States were 20 percent less than the 10-year average January number of layers, and for the South Central States about 15 percent less than the average.

The average number of eggs laid per 100 hens and pullets of laying age was 22.7 on January 1—the largest on Government record for that date. The rate of laying per hen was the highest of record in each geographic division of the country except the far western area where the previous high record was equaled.

**D**OMESTIC demand in December, as indicated by national income, was lower than a year earlier. This was the first year-to-year decline since June 1933—a period of 54 months.

Nonagricultural income, exclusive of dividends which are affected by the undistributed tax, has been receding since mid-summer. Income in December was 283 million dollars, or about 6 percent, less than in August. Agricultural income (adjusted for seasonal variation) plus Government payments has been declining since July. Income in December was 189 million dollars, or about 23 percent, less than in July.

Though basic data for estimating January income are not yet available, the lower average rate of industrial activity and lower farm prices suggest an extension of the decline in national income.

## Measures of Domestic Demand

[1924-29=100]

	December—				Percent change		
	1929	1933	1936	1937	1936-37	1933-37	1929-37
National income.....	105.1	66.5	99.9	96.1	-4	+45	-9
Nonagricultural income:							
Total.....	106.3	68.4	100.9	98.3	-3	+44	-8
Per capita.....	100.0	63.0	90.2	87.1	-3	+38	-13
Factory pay rolls:							
Total.....	98.1	54.2	92.8	78.9	-15	+46	-20
Per employed wage earner.....	97.4	69.2	94.0	88.7	-6	+28	-9
Industrial production:							
Total.....	96.4	70.2	113.3	77.7	-31	+11	-19
Factories processing farm products.....	98.1	86.1	123.6	87.5	-29	+2	-11
Other factory production.....	93.3	61.5	106.6	70.1	-34	+14	-25
Construction activity:							
Contracts awarded, total.....	84.3	50.4	54.5	51.2	-6	+2	-39
Contracts awarded, residential.....	54.6	12.5	40.3	27.8	-31	+122	-49
Employment in production of building materials.....	87.4	42.0	61.6	55.4	-10	+32	-37
Cost of living:							
Food.....	101.8	67.0	79.8	79.6	(1)	+19	-22
"All other items".....	97.5	81.9	83.0	85.9	+3	+5	-12
Purchasing power of nonagricultural income per capita:							
For food.....	98.2	94.0	113.0	109.4	-3	+16	+11
For "all other items".....	102.6	76.9	108.7	101.4	-7	+32	-1

NOTE.—All indexes adjusted for seasonal variation except "Cost of living."

<sup>1</sup> Denotes change of less than ½ of 1 percent.

# Freight Rates and the Farmer

(Abstracts from statements presented by Secretary Henry A. Wallace and Economic Adviser Louis H. Bean to the Interstate Commerce Commission, January 18, holding hearings on a proposed increase of 15 percent in freight rates and charges. <sup>1</sup>)

**B***Y Secretary Wallace:* The rate proposal, it is estimated, would restore average revenue per ton mile from 0.936 cent in 1937 to 1.07 or approximately the charges that prevailed in 1929. In the case of certain livestock products such as cattle, hogs, sheep, and grains, this 15 percent increase would restore the rates that prevailed in 1922.

This seems like a moderate increase in view of the great needs for increased revenue on the part of the railroads, but there are two main considerations that lead me to think that such an increase would be untimely and that other methods of dealing with the railroad revenue problem should be thoroughly canvassed.

In the first place, our general economic situation is at present on a much lower level than in 1936, and those few instances of prices and charges that are being sustained at the predepression levels, it is generally agreed, are hindering rather than helping a recovery in industrial activity.

In the second place, an increase in rates is not at all certain to give the roads the increased revenue, for part of their expectations are likely to be offset by a loss in traffic similar to that which they experienced in the two previous periods of recession.

After the increases in rates in 1921, freight traffic, particularly traffic in industrial products, was lost to the railroads. In the period 1929-32, traffic in both agricultural and industrial products was lost to the railroads as a result of the relatively inflexible rates.

**I****N RELATION** to farm products, the proposed 15 percent increase

<sup>1</sup> Copies of the complete statements are obtainable from the Department of Agriculture, Washington, D. C.

(in freight rates) would raise the present level of rates from 135 percent of pre-war to about 155 percent or somewhat higher than in 1929. Prices of farm products are on the average at about the pre-war level. If rates are thus restored, it would require about 50 percent more units of livestock and grains to pay for a given freight haul than in 1929 or in the pre-war years.

The demand conditions \* \* \* are not as good as they were, and with the national income receding, farmers and processors of farm products cannot pass increased costs on to the consumers. Consequently an increase in freight rates would of necessity lower prices of farm products.

**T****HERE** is one additional set of broad facts which have a bearing on this problem. It is the relation of total freight and passenger revenue to the total purchasing power of the country. In the case of passenger traffic, I find that in 1921 revenue for passenger traffic amounted to 2.09 percent of the total national income and that year by year that percentage declined continuously as automobile traffic expanded until in 1934 passenger revenue was only 0.66 percent of the national income. For the past 3 years this proportion has remained practically constant at 0.64 percent in 1935, 0.65 percent in 1936 and 0.63 percent in 1937.

These facts suggest that by and large the country now spends a fairly fixed proportion of its purchasing power for passenger traffic if competitive conditions remain unchanged, and that for a given national income the railroads may expect only a certain total passenger revenue. This means, furthermore, that an increase in passenger rates with the national income unchanged or declining as at present,



is likely to be accompanied by a reduction in volume; and while this would not alter materially the amount of revenue, it would lower service requirements and cause unemployment among railroad labor.

This is essentially the same type of economic problem that many farmers face, particularly those who produce foods and food products. Given a fixed national income, there tends to be only a certain amount of consumer retail expenditures for food, and farmers are confronted with the basic fact that if they seek prices out of line with industrial prices they cannot sell a normal volume.

The case of freight traffic is a similar one. In the years 1921, 1922, and 1923 the railroads could bank on about 7 percent of the national income being spent for railroad freight traffic. By 1929 this proportion had declined to 6 percent and by 1932 to about 5 percent. It has since then remained practically at 5 percent.

**B***Y Louis H. Bean:* Farmers have produced large crops in 1937 which are available to create more traffic for the railroads. The production of field crops was 10 percent above that of 1929, of vegetables for manufacturing 22 percent above, and for market 15 percent, fruits 56 percent and all crops combined 13 percent above 1929. The production of each of these groups of farm products was of record proportions. These abundant crops assure a continued large volume of agricultural freight.

The large crops of 1937 have been accompanied by lower prices and by a general recession in industrial activity, with the result that income from farm production has been reduced. Between December 1936 and December 1937 farm prices fell 17 percent, industrial activity, over 30 percent, and farm income from marketings perhaps 10 percent.

Because of reduced domestic demand, the lower prices of farm prod-

ucts have not been accompanied by an increase in consumption and stocks are therefore increasing to levels far above normal, serving to depress prices in 1938 well below those of 1937 and far below those of 1928-29. Stocks of farm products in 1938 will be about as large as they were in 1932-33.

**F***ARMERS'* costs of production and of living increased during 1936-37, and as usual, are not declining proportionately with the current reduction in income. The farmers' ability to purchase industrial products has been materially reduced. More than a third of the recovery in the purchasing power of farm products between 1932 and 1937 has been lost through the 1937-38 decline in farm prices. An increase in prices of goods and services bought by farmers would further reduce their purchasing power.

By the end of 1937 farm prices had returned to about the pre-war level, after having averaged 25 percent above during the 1936-37 season. Prices paid for goods and services farmers buy, however, were about 30 percent above pre-war, farm wages 22 percent above, city wage rates, 140 percent above, farm taxes 73 percent above, mortgage interest 43 percent above, and freight rates 35 to 38 percent above. The relatively high freight rates and the relatively higher industrial wage rates helped keep the cost of distributing and processing farm products 80 percent above pre-war.

Compared with 1929 conditions, farm prices are now about 30 percent below, production costs 10 percent below, farm wages 26 percent below, city wage rates 7 percent above, freight rates about 10 percent below, and taxes and mortgage interest payments 35 percent below, the latter due in large part to numerous farm bankruptcies and foreclosures since 1929. With freight rates approximately 10 percent below 1929 and industrial wages 7 percent above, the cost of distribution



and processing food products in late 1937 was only 4 percent lower than in 1929.

**T**HE agricultural outlook for 1938 is for a lower level of domestic demand than that of 1937, a lower level of prices, a lower value of agricultural exports, only a moderately lower level of costs and, therefore, a smaller gross income and a smaller income available for maintaining farm living standards.

The longer-time outlook for agriculture cannot, of course, be appraised with certainty, but judging from the long-time history of agricultural prices and their purchasing power, and some of the major supply and demand factors that determine their course, it would appear that the purchasing power of farm price and therefore of farmers is likely to be lower over the next few years than it was in 1935-37. The decline from the 1935-37 level is not, however, expected to be as great as that which occurred from the 1918-19 or the 1928-29 levels.

In view of the shrinkage in the purchasing power of consumers and in industrial activity, the farmer's share of the consumer's dollar will be lower in 1938 than in 1937 and any increase in costs of production or in distribution

will tend to lower farm prices and reduce still further the farmer's share of the consumer's dollar.

**O**NE of the central objectives of the national agricultural policy has been to restore the purchasing power of agriculture in order to bring it more nearly in line with that of the rest of the country. In 1932 the average per capita income of farmers available for living was only 36 percent of its pre-war relation to the average per capita income of the nonfarm population, taking the 1910-14 relation as 100. By 1936 the various recovery factors and the price effects of drought had restored that ratio to 86 percent. In the past 2 years farmers' income available for living barely kept pace with the increase in city incomes as a whole.

In 1938, judging from present indications, the ratio of farm to nonfarm per capita income is likely to recede to about 80 percent. An increase in transportation costs on farm products which, because of the present decline in business cannot be passed on to consumers, and which would tend to increase costs of production, would have the effect of increasing the disparity between farm and city income.

## Purchasing Power of Employed Workers

**B**OTH the number and the per capita income of workers employed at nonagricultural pursuits, covered by regular monthly Bureau of Labor Statistics reports, declined between August and December 1937. Since the decline in average per capita income during this period was greater than the decrease in living costs, per capita purchasing power of employed workers also declined. This was the first important reversal of the upward trend of per capita income and purchasing power of employed industrial workers since early in 1933.

The number of workers employed in the industries, for which regular monthly Bureau of Labor Statistics re-

ports are available, averaged 17,746,000 in 1937 compared with 16,709,000 in 1936, with 19,485,000 in 1929 and 13,549,000 in 1932. These figures account for more than half the workers employed in all nonagricultural pursuits, exclusive of emergency relief workers.

**T**HE data in this article concerning per capita income and purchasing power of employed nonagricultural workers are based on a broad sample, but certain qualifications should be kept in mind in their interpretation: (1) There are some changes among the persons employed (that is, some individuals lose their jobs and others are

added) from month to month and there may be, over a period of months, significant shifts both as between the relative importance of the several groups of industries making up the total and as between the high and low income group within a given industry; (2) the cost of living indexes used in converting per capita dollar income to indexes of real income are based on the living budget of factory workers, these trends of living costs for factory workers may not be equally representative of the trends for the other groups.

**T**HE average income of employed workers in all nonagricultural pursuits, for which current information is available, increased from \$1,211 in 1936 to \$1,289 in 1937. The 1929 average was \$1,398 and at the low in 1933 was \$1,020. The 1937 gain in income was considerably greater than the rise in living costs; consequently, the average per capita income of these employed workers was 3 percent higher, in terms of all living costs, in 1937 than in 1936. As compared with 1929, the 1937 per capita income was 8.9 percent higher in terms of all living costs, 13.3 percent higher in terms of food, and 6.6 percent higher in terms of the nonfood items.

**T**HE following table shows indexes of purchasing power (in terms of food costs and with 1929 as 100 percent) of per capita income of workers employed in the several groups of industries for which current information is available.

	1936	1937	1936		1937	
			Aug.	Dec.	Aug.	Dec.
Total.....	110	113	108	114	116	113
Manufacturing.....	110	116	107	118	119	111
Trade.....	100	101	99	97	105	102
Other <sup>1</sup> .....	123	122	119	123	127	128

<sup>1</sup> Includes mining, transportation, utilities, communication, service, and Federal Government. These groups are not shown separately owing to the belief that there have, since 1929, been some rather significant shifts as between the relative importance of the higher and lower wage brackets within some of these groups.

The monthly data contained in the table are not corrected for seasonal variation; but a definite idea of the effect of the current recession in economic activity on the purchasing power of employed workers may be obtained by a comparison of the August to December trends for 1936 and 1937.

The purchasing power represented by the average per capita income of employed urban workers in December 1936 was considerably higher than that represented by the per capita incomes in August of the same year, whereas the reverse was true in 1937.

Similarly, for each group of workers real income in December of 1937 made a less favorable comparison with the preceding August than was true in 1936. These statements hold for per capita incomes in terms of all living costs as well as in terms of food costs as shown in the table.

**D**ESPITE the severe droughts of 1934 and 1936, which forced farmers to liquidate a portion of their livestock and to curtail feeding operations, the cost of food for the family of an industrial worker averaged only 81.3 percent as high in 1937 as in 1929. The other items of the worker's budget averaged 86.4 percent as high in 1937 as in 1929 and the total cost of living 84.6 percent.

The shortage of meats created by the 1934 and 1936 droughts did, of course, result in relatively high prices for these important food products. This situation is being remedied by the abundant feed crops of 1937. Prices received by the farmers for meat animals had, by December 1937, declined 26 percent as compared with the August peak 4 months earlier, and were 9 percent lower than in December 1936. While the current decline in farm prices has not yet been fully reflected in retail markets, the cost of food entering into the urban worker's budget was 4.5 percent lower by the end of 1937 than it was 7 months earlier.

THE aggregate income of relief workers and of the unemployed is, of course, not nearly so great as was their incomes in 1929. Thus, the addition of the reduced 1937 income of those groups to that of all employed nonagricultural workers resulted, according to our estimates, in an average per capita real income for all available nonagricultural workers slightly lower than in 1929.

Food and other living costs would, of course, be burdensome to the unemployed and those working at relief jobs, under any circumstances; but it is obvious that low food prices, relative to those of the predepression period, have contributed substantially to

increased purchasing power of the average employed urban worker. The real incomes of such workers have averaged higher than in 1929 each year since 1934 and, despite some relapse late in 1937 were, in December, still about 6 percent above the 1929 average.

The major portion of the 1929 to 1937 gain in real income of employed workers is attributable to lower food costs than in 1929. Real income, in terms of the nonfood items of the family budget, was but 1.7 percent higher in December of last year than during the year 1929, whereas in terms of food alone the gain amounted to 13.1 percent.

P. H. BOLLINGER.

## Distribution and Seasonality of Agricultural Employment

SPECIAL tabulations of 1935 census data reveal the distribution of hired laborers and of farms by number of hired laborers per farm for January 1935. Distributions for other months of that year have been estimated by supplementing these data with figures by the Bureau of Agricultural Economics covering seasonal changes in employment on farms of crop reporters.

The tabulations show:

(1) That the number of farms employing hired labor, as well as the number of hired laborers on farms in the United States, increases

greatly from the January low to the late summer high, and that the rate and proportion of such increases vary greatly by regions.

(2) That while the vast proportion of all farms in the United States employ no hired laborers or only a small number, a large proportion of all hired farm labor is employed on farms hiring a substantial number of laborers per farm.

(3) That the several regions of the United States differ greatly as to the development of so-called "business" as contrasted with "family" farms.

B. A. E. data show that for the

The 1938 low point in agricultural employment is past. Farm pay rolls between January and late summer usually are increased by the employment of more than 1,000,000 farm laborers. Much of the increase is on the Pacific coast, and in the West North Central, the East North Central and West South Central regions. By late summer the farm pay rolls the country over number more than 2,700,000 hired laborers.

Information as to the seasonal and regional distribution of this large labor force is important to persons studying farm labor economic and social conditions. The accompanying article is an effort to analyze these distributions based upon census data and the monthly reports of the Bureau of Agricultural Economics of seasonal changes in employment on the farms of crop reporters.—Ed.



United States, January is the month of smallest farm employment. The number of hired laborers increases gradually through spring and sharply through summer to a peak in August. There is a gradual reduction through November and a sharp reduction in the last month of the year.

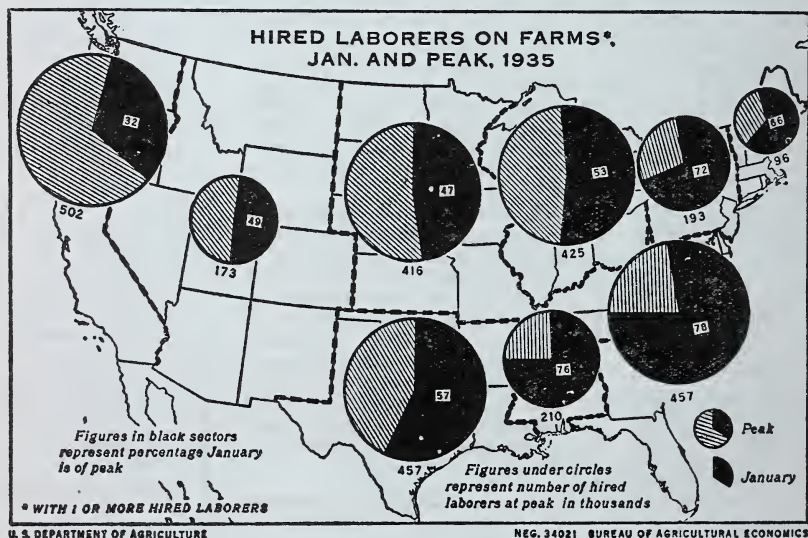
In January 1935, the census reported only 967,594 out of a total of 6,812,350 farms in the United States as having hired laborers. In August the number of farms hiring laborers is estimated at 1,518,365. From a low of 1,645,602 hired laborers in January 1935, there was an estimated increase of more than 1,100,000 in the number of hired laborers to a peak of 2,752,883 in August. Both the geographic distribution of hired farm labor and the fluctuations from January to the seasonal peak in the number of hired laborers and farms hiring labor are portrayed by regions in the accompanying maps.

**I**N JANUARY 1935 a large proportion (66 percent) of all farms hiring labor in the United States was in the South Atlantic, East North Central, West North Central, and West South Central regions. In August, although a large proportion (68.4 percent) of the total number hiring labor was in these regions, the farms of the Pacific

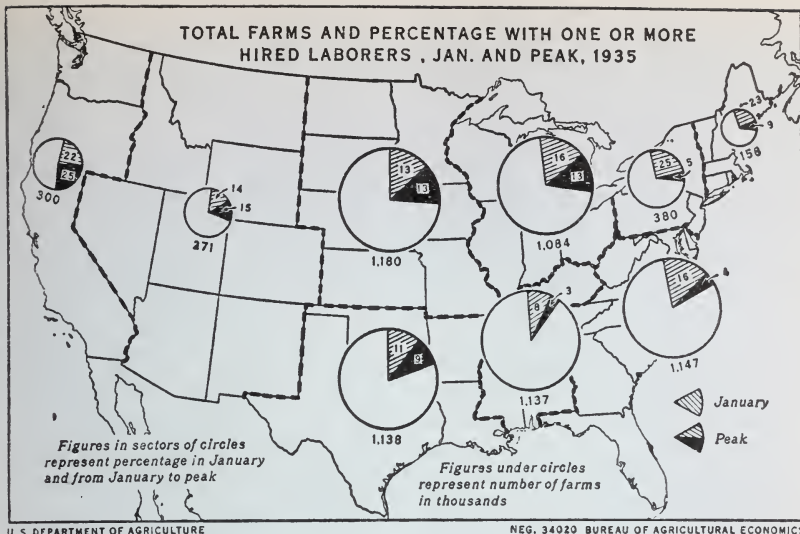
region represented a much larger proportion (8.9 percent as contrasted with 6.7 percent in January) and the order of the first four was changed to read as follows: West North Central, East North Central, South Atlantic, and West South Central.

In January the four regions showing the greatest number of farms hiring labor at that time also showed the greatest number of hired laborers. The South Atlantic region reported 358,175 hired laborers, the West South Central 259,426, the East North Central 224,444, and the West North Central 196,158. At that time the Pacific region was in fifth place with 160,728 hired laborers. At the peak the number in the Pacific region increased to 502,461 to move it into first place. The South Atlantic region showed a much smaller increase than the East North Central, West North Central, and West South Central to move from first place in January to fifth at the peak. The four regions with the greatest increase accounted for a combined increase of 960,732 hired laborers.

The increase in number of laborers in the remaining five regions totaled only 324,926 accounted for as follows: South Atlantic 99,160 from 358,175







U. S. DEPARTMENT OF AGRICULTURE

NEG. 34020 BUREAU OF AGRICULTURAL ECONOMICS

to 457,335; Mountain 88,838, from 84,141 to 172,979; Middle Atlantic 54,159, from 139,065 to 193,224; East South Central 50,363, from 160,025 to 210,388; New England 32,406, from 63,440 to 95,846.

**B**ECAUSE of the current interest in the employment of farm labor on so-called "industrial" as contrasted with "family" farms, figures showing the distribution of hired laborers and farms by the number of laborers per farm are more significant than data showing total numbers.

The following table shows for the United States the January and estimated August 1935 distribution of hired laborers on farms, according to the number of laborers per farm.

Number of hired laborers per farm	Number of hired laborers on farms <sup>1</sup>	
	January	August
1 or more.....	1, 645, 602	2, 752, 833
2 or more.....	922, 957	1, 651, 086
3 or more.....	647, 617	1, 191, 624
4 or more.....	517, 207	966, 600
5 or more.....	427, 263	810, 976
6 or more.....	364, 698	701, 086
7 or more.....	315, 278	618, 413
8 or more.....	289, 168	571, 189
9 or more.....	250, 396	518, 317
10 or more.....	244, 132	487, 951

<sup>1</sup> January figures are census data; August figures are estimates.

This table shows that of the 1,645,-602 hired farm laborers reported by the census as of January 1935, 722,645 or 43.9 percent were then on farms with only 1 hired hand and 275,340 or 16.7 percent were on farms with 2. The farms with 3 or more hired laborers per farm employed 647,617 or 39.4 percent of the total. In August it is estimated that out of 2,752,833 hired laborers 1,101,797 or 40.0 percent were on farms with 1 hired hand, 459,462 or 16.7 percent on farms with 2, and 1,191,624 or 43.3 percent on farms with 3 or more.

The following table shows for the United States the January and August (1935) number of farms with a given number of hired laborers.

Number of hired laborers reported per farm	Number of farms reporting given numbers of hired laborers <sup>1</sup>	
	January	August
1 or more.....	967, 594	1, 518, 365
2 or more.....	244, 949	416, 563
3 or more.....	107, 279	186, 837
4 or more.....	63, 809	111, 829
5 or more.....	41, 323	72, 923
6 or more.....	28, 790	50, 945
7 or more.....	20, 570	37, 167
8 or more.....	16, 840	30, 420
9 or more.....	13, 006	23, 811
10 or more.....	11, 410	20, 437

<sup>1</sup> January figures are census data; August figures are estimates.

From this table it may be seen that in January 1935 of the 967,594 farms with hired labor, 722,645 or 74.7 percent employed only 1 man, 137,670 or 14.2 percent employed 2, and 107,279 or 11.1 percent employed 3 or more. In August, out of a total of 1,518,365 farms with hired labor, 1,101,797 or 72.6 percent had 1 man, 229,731 or 15.1 percent had 2, and 186,837 or 12.3 percent had 3 or more.

AS A general matter it may be noted that while both the total number of farms and the total number of hired laborers increased greatly from January to the peak, the change in the percentage distribution of these totals varied but slightly. There is, however, manifested a slightly greater concentration in the higher class groups in the peak month. An inspection and comparison of the two distribution

tables at any given time also reveals that while of the farms employing hired labor, only a very small proportion employ more than one or two, the proportion of all laborers hired on farms employing three or more is rather large. While for the United States as a whole only 11.1 percent of all farms hiring labor in January and 12.3 percent of those hiring labor in August had three or more hired laborers, farms with three or more employed 39.4 percent of all hired farm laborers in January and 43.3 percent in August.

A study of separate regions indicates very wide differences in the proportion of farms having a relatively large number of hired laborers per farm, and in the proportion of all hired laborers on such farms.<sup>1</sup>

JULIUS T. WENDZEL.

<sup>1</sup> An analysis of distribution by regions will be presented next month.

## Cooperative Egg and Poultry Auctions

THE most important and interesting development in the cooperative marketing of eggs and poultry in the last 10 years has been the country-point poultry-and-egg-auction associations. The rapid growth and apparent success of this type of association indicate its ability to fill the need for a relatively new type of producers' cooperative organization to market poultry and eggs in the producing sections adjacent to the large consuming centers of the East.

Although a number of associations of the more formal pool type had been formed in the East prior to the organization of the auctions for the purpose of marketing eggs cooperatively, and several of these are still operating successfully, this method of operation has not appealed to producers generally. The areas of operation and influence of the pools have been local and apparently definitely limited.

THE first auction of this type was organized at Toms River, N. J., in

May 1930. Chiefly because its method of operating was entirely new and because of the inexperience of the leaders and producers, this pioneer attempt was unsuccessful. In August 1930 a second attempt was made, this time at Flemington, N. J.

The Flemington Association started with 36 producers; it was successful from the start and has been the model after which 23 similar cooperative egg and poultry auction associations have been patterned and successfully operated in 8 of the Northeastern States. The number of auctions in each of these States is as follows: New Jersey, 5; Pennsylvania, 5; New York, 5; Connecticut, 3; Massachusetts, 2; Ohio, 2; New Hampshire, 1; and Rhode Island, 1. All but two of the associations are within a 50-mile radius of one or more metropolitan markets; none is more than 100 miles distant.

THE total value of the products marketed by these auction asso-

ciations in 1936 was in excess of 7½ million dollars. The total active membership of the 24 associations in 1936 was more than 12,000 producers; individual associations had active membership ranging from 100 to over 1,500. Membership is usually concentrated within a 30-mile radius of the auction plant, although many of the auctions are getting increased volume from distant shippers whose eggs are collected by private truckers under the supervision of the associations.

Ten of the auctions handle eggs only; 14 handle both eggs and poultry. One auction has, in addition to eggs and poultry, sold livestock at auction very successfully during the last 3 years. In all but two auctions, either Federal or State grades are used in selling eggs. Auctions selling poultry have set up their own grades which closely follow Federal standards. Producers are identified with their product by the use of lot numbers at all the auctions.

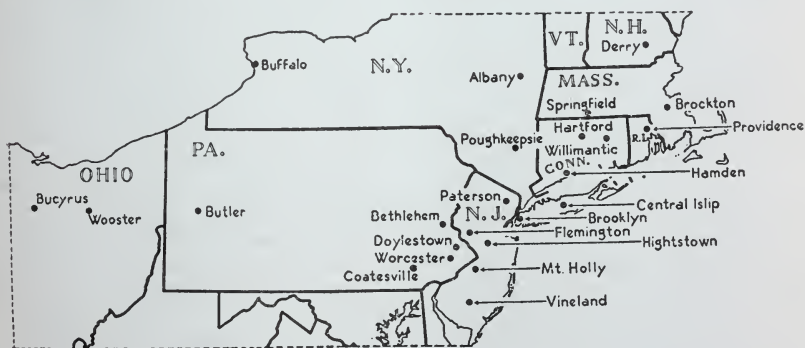
The original set-up and method of operation was much the same for all associations but marketing and production conditions have made some changes advisable. Four associations have made the major change of abandoning the selling of eggs by the auction method while others have found a combination of auction and nonauction selling more suitable to their market area.

**T**HERE were four important reasons for the setting up of the auction

associations. These were: (1) A general feeling that continuous and reliable outlets for nearby eggs were needed and that group action was necessary for the eastern area if marketing, and consequently production, conditions were to be improved. (2) Other types of cooperatives had not proved generally successful for egg marketing in the Northeast. (3) The spread between farm prices and metropolitan prices for nearby eggs was considered excessive. (4) The Pacific coast and western producers, through their cooperative marketing associations and their eastern outlets, were selling increasing volumes of eggs in the eastern markets and were obtaining relatively higher prices for eggs than were most of the nearby producers.

The auction associations, although individually small in membership and local in operation, have effectively met the objectives of the eastern producers and the influence of these associations has gone far beyond the immediate auction membership and territory.

The concentration of large volumes of eggs and poultry at central points has made possible orderly and efficient marketing which has done much to eliminate the unethical methods of buying formerly practiced by farm-to-farm buyers—for example, improper weighing and grading, bad checks, unjustified complaints, and unreliable service.



Egg and Poultry Cooperative Auctions



The simplicity, orderliness, openness, and directness of auction selling has appealed to both buyer and seller alike. The selling on an inspected graded basis of the producer's eggs, as they have been packed by him, has had a definite effect in improving the quality of eggs sold through the auctions.

**E**STABLISHED in areas of comparatively heavy production the associations have been able to obtain sufficient volumes of high quality eggs and poultry to attract buyers willing to pay the premium which a high quality product warrants. Coupled with sufficient volume, the comparatively simple operations of the auctions and the limited services rendered by them made possible low handling costs. These costs, including all except container and assembling costs, range from 30 to 45 cents per case of eggs and 40 to 50 cents per crate of poultry, or about 5 percent of the gross value of the product.

Prices received by the auctions generally equal or exceed the wholesale prices for similar grades of eggs and poultry in nearby metropolitan markets. Prior to the auctions, farm-to-farm and local buyers usually purchased eggs at from 2 to 8 cents below the metropolitan market wholesale quotations. The prices now paid to producers in the auction areas by hucksters and local buyers are largely based upon auction-price quotations which appear in local papers, State Bureau of Markets price letters, and on the auction price cards.

It is not anticipated that there will be a general or widespread development of this type of cooperative association marketing eggs and poultry. Present information indicates that these auction associations are peculiarly adapted to the handling of eggs and poultry in the Northeast and possibly in other limited areas, where a combination of certain factors is favorable, but that these associations are not adapted to marketing poultry products over the country as a whole.

**T**HE many inquiries received concerning these auction associations indicate that there is a general lack of knowledge of the fact that apparently at least three basic conditions should exist for the successful operation of a cooperative association marketing eggs or poultry, or both, by the auction method. These conditions are:

1. Relatively heavy production. The production of eggs and poultry should be relatively heavy so that a sufficient volume of high-quality eggs and poultry will be readily and constantly available. This usually signifies the commercial type of production in contrast with the farm-flock type of production.

2. Nearness to large consuming centers. Since auction eggs and poultry are usually purchased for resale at retail to adjacent consuming centers, rather than for shipment to distant markets, it is essential that the auctions be close to one or more large cities.

3. Patronage of large number of buyers. The auction method of selling presupposes a number of buyers for each lot of the product offered for sale. A large number of small handlers—such as house-to-house peddlers, route men, retail stores, and others selling directly to the consumers—is necessary. Proximity to large cities does not always indicate that a sufficient number of buyers will be available to create sufficient competition in bidding.

In addition to these three basic conditions one other probably should be added; that is, location in a generally deficit producing area. Since no auctions have as yet been established in States having a surplus production of eggs and poultry, there is some question as to the importance of this condition or factor. Therefore, even if the other three conditions are favorable, associations of the auction type established in surplus areas close to such markets as San Francisco, Chicago, or Minneapolis may not be successful.

JOHN T. SCANLON and  
ROY W. LENNARTSON.



# World Industrial Production, Commodity Stocks, and Prices

WHILE industrial production was substantially maintained in foreign countries through 1937, industrial production in the United States in the fall of 1937 was reduced to lowest levels in nearly 4 years. Farm production in the United States was the largest on record.

World industrial production, excluding the United States, after a temporary midsummer slump, reached a new high record in November. But in November, industrial production in the United States was reduced to 89 percent of the 1923-25 average, and in December was down to 84.

The future trend of industrial production in foreign countries has an important bearing upon prices of commodities having a world market and hence upon world purchasing power. Industrial recovery in this country should be hastened if foreign industrial production is substantially maintained in the next few months.

SINCE the high level of industrial activity in foreign countries is based to a large extent upon production for internal needs, particularly for rearmament purposes, it seems likely that the various developments arising from our curtailed output will not be accompanied by any material recession in foreign industrial output.

It is likely, however, that the decline in prices of primary raw materials and foodstuffs will reduce, to some extent, the purchasing power of countries producing such commodities and hence influence the export sales of important industrial countries. On the other hand, countries with rigid foreign exchange and import restrictions will be able to obtain larger quantities of imports at the lower level of prices; this factor should contribute to a higher level of consumption in these countries. Foreign industrial activity, however, is not likely to

resume the rapid rate of increase that has prevailed since the middle of 1932, until United States industrial production again resumes an upward trend.

WHEN industrial activity is sharply curtailed, commodity prices usually show a general weakness. The decrease in the Bureau of Labor Statistics index number from 87.5 in August to 81.2 at the end of December is the sharpest drop in this index during the 5-year period that prices have been advancing from their depression low point at the beginning of 1933. The decrease in this index, however, was preceded, by several months, by a drop in the average prices of primary raw materials and foodstuffs.

Prices of these commodities had risen rapidly in the latter part of 1936 and early 1937, bringing about increased supplies through increased production and expansion of production quotas of such commodities as copper, tin, and rubber. At the same time, prices of some commodities had reached such levels as to curtail purchases.

These composite forces contributed to the almost continuous decline in average prices of primary raw materials and foodstuffs which occurred after March 1937. As reasonably large inventories of raw materials had been accumulated, the period of declining prices, in the absence of a further expansion in industrial production in the United States, probably led more largely to a consumption of inventories than to further market purchases.

Since the level of consumption has been substantially maintained in foreign countries, and stocks of international commodities, aside from the increased supply of cotton resulting from the record 1937 crop, have increased chiefly as the result of reduced consumption in this country, it is quite

possible that primary raw materials and foodstuffs may show a wide range in prices during the current year. With the present high rate of consumption in foreign countries, a recovery in industrial output in the United States with the accompanying increase in demand for raw materials, both for consumption and replenishment of inventories, is likely to accelerate a reduction in world commodity stocks.

**A**S the movement of commodity stocks reflects the combined influence of supply and demand as influenced by speculation, such stocks are of great importance in the observation and appraisal of price trends. Thus market reports frequently state "large increase in visible supplies depresses prices" or "marked reduction in visible stocks lends firmness to market." In the lower section of the accompanying chart the index of world stocks (expressed in relation to the index of industrial production) is compared with the index of commodity prices.

While the two series may diverge for a short period as the result of special factors such as strikes and programs restricting production or shipments, the close correlation between the two series indicates the relative importance of visible commodity stocks in the determination of price trends. It is probable that further refinements of the basic data and of the statistical method would result in an even closer correlation.

**C**HANGES in crop production are promptly reflected in changes, in a similar direction, in the visible stocks of such commodities. This is due to the fact that the consumption of farm products is relatively inelastic. The influence of these changes upon visible stocks, and particularly upon prices, usually is reflected even before supplies of the new crop are received at central markets.

The prospect of a large crop with a further lowering of prices will tend to

cause buyers to hold down their inventories to a minimum. The reduction in their current purchases thus tends to increase visible supplies. Likewise, the prospect of a smaller crop with higher prices will cause consumers to stock up, tending to reduce visible supplies.

The visible stocks of other commodities whose output is less subject to climatic and other hazards of nature, such as the metals, are primarily influenced from the supply side by the decisions of those who control the production policies. Several commodities, notably copper and tin among the metals, have been subject to programs restricting production or shipments. To the extent that such control programs influence the volume of shipments to central world markets, visible stocks of those commodities are thereby affected.

**F**ROM the demand side, world commodity stocks are influenced primarily by changes in the national incomes of individual countries. Variations in the national incomes of countries of extensive industrial interests are chiefly the result of changes in the volume of industrial production and wholesale price levels. Thus the level of industrial production has a direct influence upon the demand for international commodities.

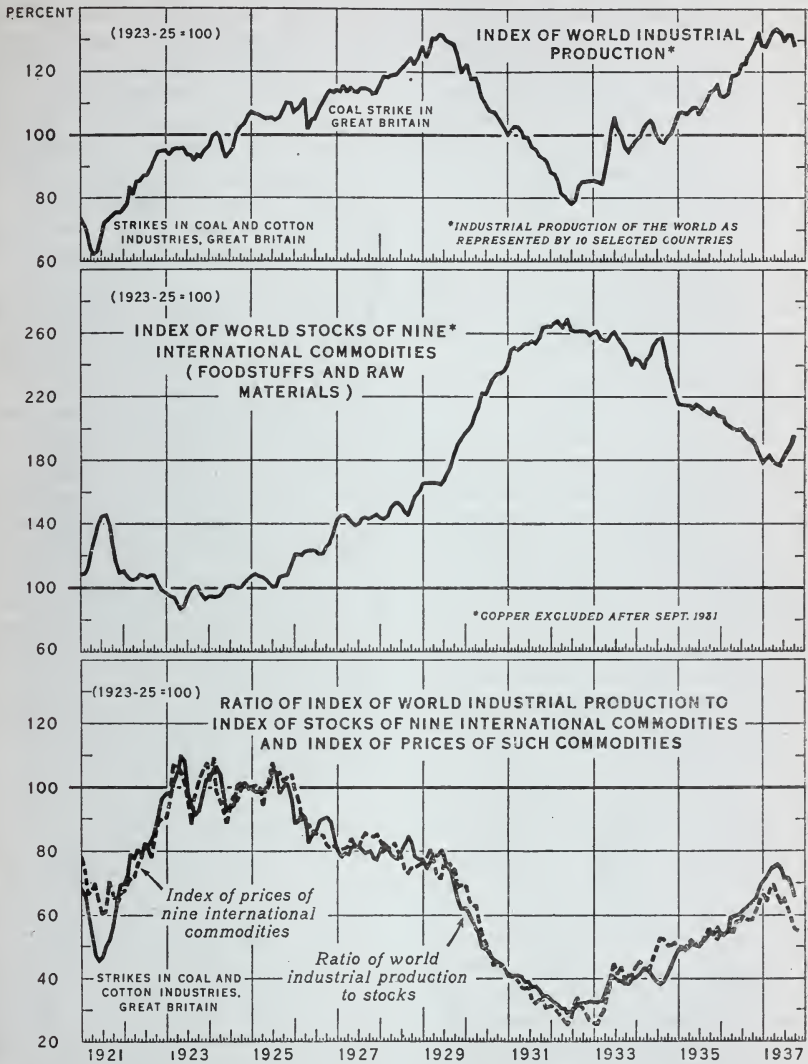
The process by which changes in world industrial production affect these visible stocks is through: (1) Changes in the rate of consumption of those raw materials utilized directly in the industrial process such as rubber, copper, tin, and to some extent cotton; (2) changes in the amount of money purchasing power, chiefly wages, which is available for purchasing foodstuffs and raw materials used directly for consumption.

These changes, which also affect the money purchasing power of producers of international commodities, in turn affect the demand of such producers for industrial goods. As the amount paid out for imports by industrial countries is increased, im-

ports of countries producing international commodities are also increased.

Likewise, when industrial countries pay out less for imports, there is a corresponding reduction of imports by

FACTORS INFLUENCING PRICES OF COMMODITIES  
HAVING AN INTERNATIONAL MARKET, 1921-37



U. S. DEPARTMENT OF AGRICULTURE

NEG. 32095

BUREAU OF AGRICULTURAL ECONOMICS

The index of world stocks used in the above chart is not identical with the series of nine international commodities formerly issued by the Department of Commerce. While using the same basic data (except for sugar), certain changes have been made in the method of seasonal correction for some of the major commodity series included in the index. These relate primarily to the computation of an average for each month which combines the end-of-the-month figure with that of the preceding month. After this adjustment, the individual commodity series are adjusted for seasonal variation, not on the basis of the usual seasonal percentage change in stocks, but upon the basis of the usual seasonal changes in unit volume. The use of the latter principle is based upon the assumption that the market quickly adjusts prices to the estimated change in annual supply and, subsequently, adjusts the price relative to the usual seasonal change in the unit volume of such supplies in relation to either an increased or decreased annual production.



other countries. International trade thus represents, in effect, a circuit flow of goods and services based primarily upon the interchange of the output of industrial countries for the output of countries producing raw materials and foodstuffs.

The circuit flow of funds which accompanies this international exchange of goods and services, however, may be increased or decreased by variations in the outstanding volume of international long- and short-term credits. An increase in such credits augments world purchasing power of an individual country over and above that which is derived from its own production. A reduction in such credits, on the other hand, tends to bring about a reduction in the individual country's purchasing power in international trade.

**I**F THE bidding of speculative buyers increases the price of an individual commodity too rapidly, or more rapidly than consumers believe to be justified by the existing and prospective supply-demand situation, consumers will tend to refrain from purchasing and draw more extensively upon inventories. Such general withholding of purchases causes visible stocks to show either a contraseasonal rise or a decline of less-than-usual seasonal proportions.

In using the term "consumers," relative to markets influenced largely by speculative operations, reference is made primarily to processors, fabricators, exporters, and importers. The judgment of these consumers is to a large extent based upon their past experience in appraising price trends under varying supply-demand conditions, and upon the anticipated reaction of the ultimate consumers of processed and fabricated commodities to any rise in price which would likely be out of line with the income of consumers as a whole. A rise in the price of processed and fabricated products, reflecting the increased cost of raw materials or foodstuffs, would tend to restrain actual consumption, un-

less wages, salaries, dividends, interest, and rental payments, and other forms of current income are correspondingly raised.

On the other hand, if speculative activity has pushed prices too low, so that prices of individual commodities are low relative to the usual relationship of such prices to the current level of consumer purchasing power, consumption is accelerated and unless production is maintained at a correspondingly high level, visible stocks will show a contraseasonal decrease. Adjustments upward in prices, of course, will follow with the decrease in visible supplies.

**M**AJOR changes in the level of prices of international commodities as influenced by supply-demand conditions have been reflected in many of the major cyclical movements in the United States wholesale price level. The decline in the latter index from 1920 to 1921, the subsequent recovery to 1923, the brief decline from 1923 to 1924, the following recovery that continued through most of 1925, then turned downward through 1926, the sharp drop from the last of 1929 to the middle of 1932, and the recovery that has prevailed since the latter date have, in some degree, corresponded to the movement of prices of international commodities.

In view of the importance of consumer purchasing power in the United States as a factor in the world demand for international commodities, as was pointed out in *The Agricultural Situation* for August 1937, it is logical that factors which would affect consumption in the United States should likewise influence the prices of international commodities. On the other hand, changes in world production and stocks of these commodities are also important factors affecting our price level. These world influences upon our price level occur partly as a result of the fact that the United States is itself a large producer of many international commodities, par-



ticularly cotton and wheat, and partly through variations in the foreign demand for our manufactured goods.

Price changes of these international commodities usually result in appreciable changes in the incomes of producers of raw materials and foodstuffs, which in turn influence world industrial production, including that of the United States, through changes in the demand for semifinished and finished manufactures. Because of the relatively rigid level of marketing and transportation costs, changes in world market prices are reflected in proportionately greater changes in the

returns received by producers of international commodities. As producers of raw materials and foodstuffs probably have the most variable income of any large economic group, their purchasing power represents the most variable element in the world economy and hence exerts an appreciable influence upon world industrial production. These changes in the period of the twenties were, to a large extent, obscured by the flow of international capital which augmented the purchasing power of so many countries during that period.

NORMAN J. WALL.

## Economists in Government Service

**P**OSITIONS in economics and statistics in the Government service fall, usually, into one of three groups: (1) Positions involving research on administrative and economic problems; (2) positions which are primarily advisory in nature; (3) positions which are primarily of an administrative nature but which require a broad technical knowledge of economics and statistics.

The increase in the number of these positions since 1931 has taken place primarily in the Department of Agriculture, the Department of Labor, the Social Security Board, the Securities and Exchange Commission, and the Farm Credit Administration. The largest increases in economist positions were in agricultural economics, business economics, and social economics.

The great majority of appointments to statistician and economist positions are subject to the Civil Service Act: the appointments are made from registers of eligibles who qualify in competitive examinations held by the Civil Service Commission. Besides appointments from statistician registers, appointments to various clerical

positions are made from the statistical-clerk registers.

Appointments also have been made to statistician and economist positions in agencies which have not been subject to the Civil Service Act—the Agricultural Adjustment Administration, the Farm Security Administration, and the Works Progress Administration. The Civil Service Commission makes its registers of eligibles available to such agencies when so requested, but the manner of selection from the registers rests with those agencies.

Agencies such as the Farm Credit Administration, the Securities and Exchange Commission, the Soil Conservation Service, and the Social Security Board are authorized to make appointments to "expert" positions, ordinarily above the \$3,200 level, without examination. In appointments of this sort, it must be shown to the satisfaction of the Civil Service Commission that the position is of an "expert" nature and that the proposed appointee has the necessary "expert" qualifications.

WAYNE F. CASKEY.

# General Trend of Prices and Wages

[1910-14=100]

Year and month	Wholesale prices of all commodities <sup>1</sup>	Industrial wages <sup>2</sup>	Prices paid by farmers for commodities used in <sup>3</sup> —			Farm wages	Taxes <sup>4</sup>
			Living	Production	Living and production		
1920.....	225	222	222	174	201	239	209
1921.....	142	203	161	141	152	150	223
1922.....	141	197	156	139	149	146	224
1923.....	147	214	160	141	152	166	228
1924.....	143	218	159	143	152	166	228
1925.....	151	223	164	147	157	168	232
1926.....	146	229	162	146	155	171	232
1927.....	139	231	159	145	153	170	238
1928.....	141	232	160	148	155	169	239
1929.....	139	236	158	147	153	170	241
1930.....	126	226	148	140	145	152	238
1931.....	107	207	126	122	124	116	217
1932.....	95	178	108	107	107	86	188
1933.....	96	171	109	108	109	80	161
1934.....	109	182	122	125	123	90	153
1935.....	117	191	124	126	125	98	<sup>5</sup> 154
1936.....	118	199	122	126	124	107	-----
1937.....	126	215	128	135	130	120	-----
December 1936.....	123	211	124	133	128	-----	-----
January 1937.....	125	209	-----	-----	130	103	-----
February.....	126	211	-----	-----	132	-----	-----
March.....	128	218	127	139	132	-----	-----
April.....	128	219	-----	-----	134	112	-----
May.....	128	219	-----	-----	134	-----	-----
June.....	127	220	129	141	134	-----	-----
July.....	128	218	-----	-----	133	123	-----
August.....	128	220	-----	-----	132	-----	-----
September.....	128	215	129	132	130	-----	-----
October.....	125	214	-----	-----	128	126	-----
November.....	122	205	-----	-----	127	-----	-----
December.....	119	207	126	127	126	-----	-----

Year and month	Index numbers of farm prices [August 1909-July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920.....	232	248	191	-----	174	198	223	211	105
1921.....	112	101	157	-----	109	156	162	125	82
1922.....	106	156	174	-----	114	143	141	132	89
1923.....	113	216	137	-----	107	159	146	142	93
1924.....	129	212	125	150	110	149	149	143	94
1925.....	157	177	172	153	140	153	163	156	99
1926.....	131	122	138	143	147	152	159	145	94
1927.....	128	128	144	121	140	155	144	139	91
1928.....	130	152	176	159	151	158	153	149	96
1929.....	120	144	141	149	156	157	162	146	95
1930.....	100	102	162	140	133	137	129	126	87
1931.....	63	63	98	117	92	108	100	87	70
1932.....	44	47	82	102	63	83	82	65	61
1933.....	62	64	74	105	60	82	75	70	64
1934.....	93	99	100	103	68	95	89	90	73
1935.....	103	101	91	127	118	108	117	108	86
1936.....	108	100	100	113	121	119	115	114	92
1937.....	126	95	122	122	132	124	111	121	93
January 1937.....	143	107	105	115	128	128	110	131	101
February.....	146	108	127	143	126	126	101	127	96
March.....	145	116	133	131	129	125	102	128	97
April.....	154	117	142	127	130	120	104	130	97
May.....	149	112	152	139	133	116	96	128	96
June.....	139	107	157	124	137	113	95	124	93
July.....	139	106	145	96	144	116	102	125	94
August.....	119	90	123	104	151	119	109	123	93
September.....	111	74	121	117	144	123	119	118	91
October.....	93	67	99	130	136	128	127	112	88
November.....	85	65	88	124	120	132	135	107	84
December.....	86	64	76	112	111	136	127	104	81
January 1938.....	91	66	70	101	110	128	113	102	81

<sup>1</sup> Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>2</sup> Average weekly earnings, New York State factories. June 1914=100.

<sup>3</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>4</sup> Index of farm real estate taxes, per acre, 1913=100.

<sup>5</sup> Preliminary.